ATEX

Offshore And Subsea Products





OFFSHORE AND SUBSEA PRODUCTS





In Directive 94/9/EC, equipment for areas with an explosion hazard is assigned to groups, categories and temperature classes. This is necessary as the requirements for equipment need not be the same for every application and for every hazard classification.

group I Equipment group I (mines, firedamp and combustible dusts)

Category M1	Category M2
1	
Very high level of protection: Equipment must feature integrated explosion protection measures	High level of protection: Protection measures must ensure the required level of safety during normal operation also under arduous conditions and in particular heavy handling and under changing ambient conditions
The equipment must continue to operate in an explosive atmosphere even in the event of rare faults	It must be possible to switch off the equipment if an explosive atmosphere occurs

group II Equipment group II (explosive atmospheres caused by mixtures of gas/air or dust/air, vapours or mists)

	Z	one		
Category	G [Gas]	D[Dust]	Equipment safety	Explosive atmosphere
1	0	20	Equipment which ensures a very high level of safety. In the event of rare equipment faults.	Intended for use in areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or by air/dust mixtures are present continuously, for long periods or frequently.
2	1	21	Equipment which ensuresa high level of safety. If equipment faults are to be expected.	Intended for use in areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or by air/dust mixtures are likely to occur occasionally.
3	2	22	Equipment which ensures a normal level of safety. For normal operation	Intended for use in areas in which explosive atmospheres caused by gases, vapours or mists or whirled up dust are unlikely to occur or, if they do occur, are likely to do so only infrequently and for a short period.

Temperature classes

Technical basis



The ignition temperature is the lowest temperature of a heated surface at which the gas/air or vapour/air mixture ignites. In other words, it represents the lowest temperature value at which a hot surface is capable of igniting the corresponding explosive atmosphere. Thus the highest surface temperature of any equipment must always be less than the ignition temperature of the gas/air or vapour/air mixture.

Temperature classes

Temperature classes	Permissible max. surface temperature of the equipment	Ignition temperature range of the mixtures
T1	450° C	>450° C
T2	300° C	>300 ··· ≤ 450° C
Т3	200° C	>300 ··· ≤ 300° C
T4	135° C	>135 ··· ≤ 200° C
T5	100° C	>100 ··· ≤ 135° C
T6	85° C	>85 ··· ≤ 100° C











Explosion groups

Equipment of group II, for appropriate use in explosive gas atmospheres may also be classified by the type of explosive area.

Explosion groups

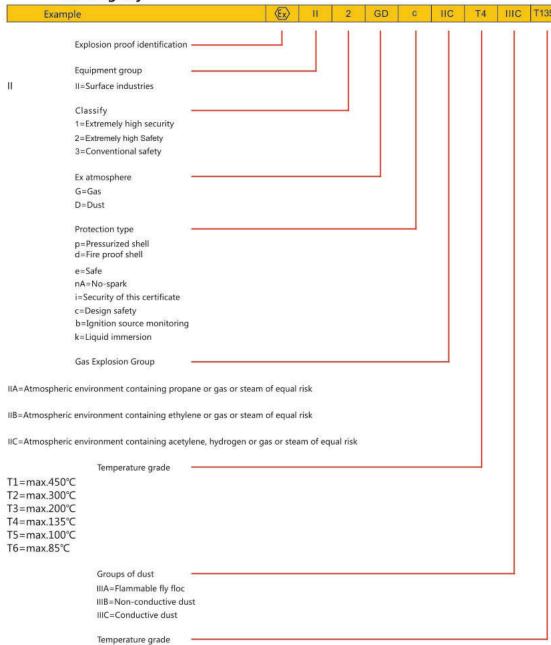
Explosion group of the explosive atmosphere	Equipment with marking of the explosion group which may be used in these atmospheres	Maximum experimental safe gap
IIA	IIA, IIB, IIC	>0.9 mm
IIB	IIA, IIB	≤0.9 - ≥ 0.5 mm
IIC	IIC	<0.5 mm

(IEC60079-12)

(MIC)

This classification is based on the Maximum Experimental Safe Gap (MESG) and the Minimum Ignition Current (MIC) of the gas mixture (see IEC 60079-12) or the explosion groups can also be used for classification of the equipment based on their inflammability.

Marking key



















EX-F3





Chain Hoist

Ex II 2 GD c IIC T4 IIIC T135°C







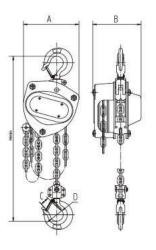
EX-F3 Spark Proof Chain Hoist

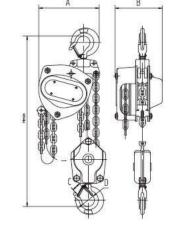


- 1. The product complies with the EU's explosion-proof standard ATEX94/9/EC and the Machinery Directive 2006/42/EC.
- 2. The company has passed ISO9001, ISO14001, CE/GS, ATEX, LR, CCS and other related certifications.
- 3. The product explosion-proof level can reach: Ex II 2 GD c IIC T4 IIIC T135 $^{\circ}$ C. Suitable for: potential explosive atmospheres or dusty environments. Area: Zone 1 & 2 (gas), Zone 21 & 22 (dust).
- 4. The whole product is equipped with anti-spark coating, and the brake device is completely protected to prevent foreign matter from entering.
- 5. Stainless steel lifting chain, special marine storage chain bag, overload limiter are optional.

Note: It is the responsibility of the user to determine the type of explosion protection area.

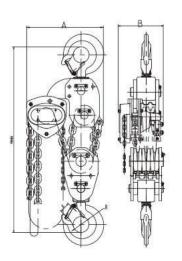


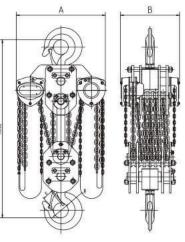








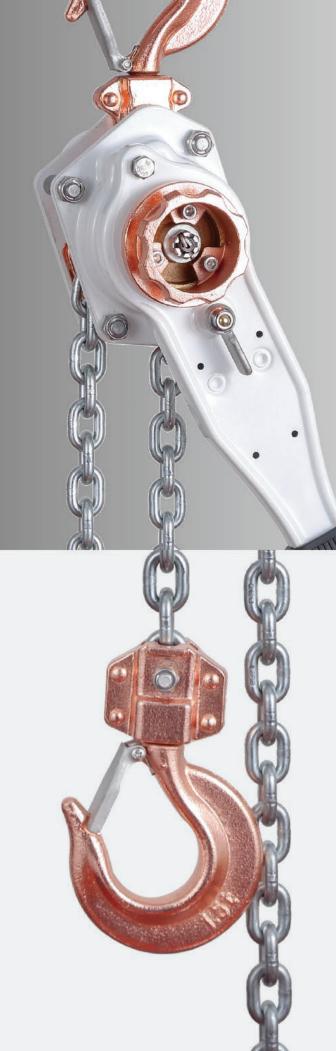


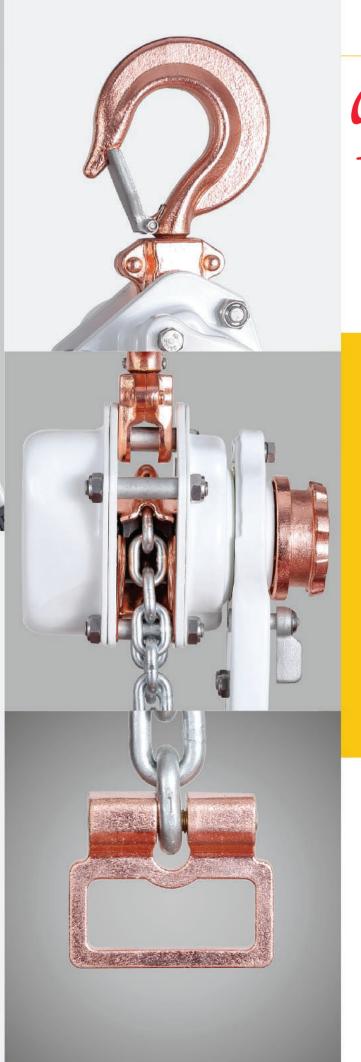


7.5t ~ 15t

20t ~ 30t

Model		F3-0.5	F3-1	F3-1.5	F3-2	F3-3	F3-5	F3-10	F3-15	F3-20	F3-30
Capacity	t	0.5	1	1.5	2	3	5	10	15	20	30
Lifting height	m	2.5	2.5	2.5	2.5	3	3	3	3	3	3
Test load	KN	6.3	12.5	18.8	25	37.5	62.5	125	187.5	250	375
Pull on lever to lift full load	Ν	240	250	265	335	372	380	385	385	390x2	240
No.of load chain falls		1	1	1	1	1	2	4	6	8	12
Diameter of load chain	mm	5x15	6x18	7x21	8x24	10x30	10x30	10x30	10x30	10x30	10x30
	Α	148	172	196	210	255	280	385	405	640	705
	В	132	151	173	175	205	189	189	242	226	454
Dimensions	С	23	26	29.5	34	39	41	50	80	80	80
mm	D	35	40	45	50	55	65	85	110	110	110
	Hmin	345	376	442	470	580	690	780	920	980	1280
Net weight	kg	9.3	12.2	16.5	19.5	32	43	80.7	140	180	350
Extra wt.per m	mm	1.41	1.67	1.97	2.27	2.95	5.27	9.67	14.07	19.34	28.14









EX-L3

Spark ProofLever Hoist

Ex II 2 GD c IIC T4 IIIC T135°C





EX-L3 Spark Proof Lever Hoist

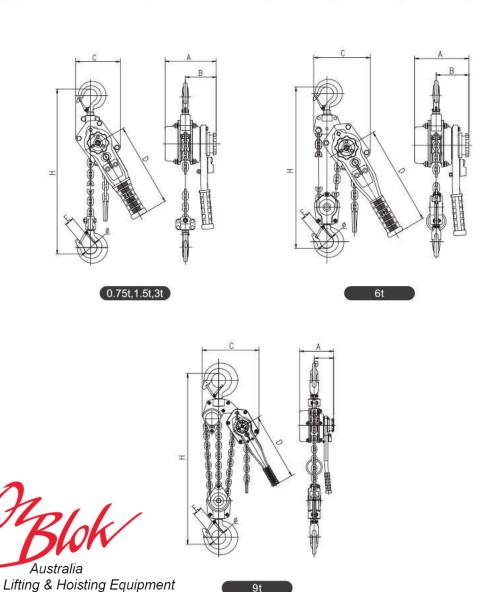




- 1. The product complies with the EU's explosion-proof standard ATEX94/9/EC and the Machinery Directive 2006/42/EC.
- 2. The company has passed ISO9001, ISO14001, CE/GS, ATEX, LR, CCS and other related certifications.
- 3. The product explosion-proof level can reach: Ex II 2 GD c IIC T4 IIIC T135 °C. Suitable for: potential explosive atmospheres or dusty environments.

 Area: Zone 1 & 2 (gas), Zone 21 & 22 (dust).
- 4. The whole product is equipped with anti-spark coating, and the brake device is completely protected to prevent foreign matter from entering.
- 5. Stainless steel lifting chain, special marine storage chain bag, overload limiter are optional.

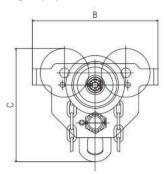
Note: It is the responsibility of the user to d etermine the type of explosion protection area.

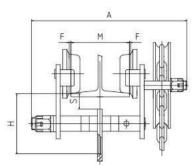


Model		L3-0.5	L3-1	L3-1.5	L3-2	L3-3	L3-5
Capacity	t	0.5	1	1.5	3	6	9
Lifting height	m	1.5	1.5	1.5	1.5	1.5	1.5
Test load	KN	6.3	12.5	18.8	37.5	75	112.5
Pull on lever to lift full load	N	256	250	373	395	398	400
No.of load chain falls		1	1	1	1	2	3
Diameter of load chain	mm	5x15	6x18	7x21	10x30	10x30	10x30
	Α	143	157	178	206	206	206
	В	90.5	94	104	118	118	118
	С	118	140	145	199	230	342
Dimensions mm	Ø	31.5	37.5	42.5	50	65	85
	Е	23.5	26	31	37	46	55
	Hmin	330	365	400	520	595	800
Net weight	kg	5.5	7.9	10.9	20.2	35	55
Extra wt.per m	mm	0.55	0.8	1.1	2.15	4.3	6.45

EXGCL Ex-proof Geared Trolley





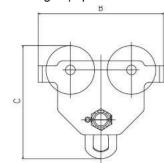


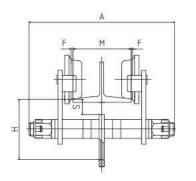
Model				GCT-1	GCT-2	GCT-3	GCT-5	GCT-10	GCT-20	GCT-30		
Capacity		t		1	2	3	5	10	20	30		
Test load		KN		14.71	29.42	44.13	61.29	122.58	245.17	367.75		
Running height		m		m		1.0	1.1	1.3	1.4	2.0	3.5	6.0
Min. radius curve m		n	7	2.5	2.5	2.5	2.5	2.5	2.5	2.5		
		А	а	311	327	343	355	388	449	626		
		А	b	413	429	445	457	490	551	582		
		B C		246	276	332	377	424	555	710		
Dimensions				222	263	309	353	396	498	598		
mm		H	1	125	150	171	196	190	233	285		
		5	S	38	38	40	42	45	58	65		
		I	=	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3		
	2222		а	64-203	88-203	100-203	114-203	124-203	136-203	14		
Beam range	mm	М	b	64-305	88-305	100-305	114-305	124-305	136-305	175-305		
	len	é	9	14.5	21.5	31	46	88	165			
Net weight	kg	b		15.5	23	33	48	94	174	337		

EXGCT Ex-proof Push Trolley



Lifting & Hoisting Equipment





型号 Model			GCT-1	GCT-2	GCT-3	GCT-5	GCT-10	GCT-20	GCT-30	
Capacity	t			1	2	3	5	10	20	30
Test load		KN		14.71	29.42	44.13	61.29	122.58	245.17	367.75
Min. radius curve m		m		1.0	1.1	1.3	1.4	2.0	3.5	6.0
		A	а	311	327	343	355	388	449	20
		Α	b	413	429	445	457	490	551	582
		I	B 246		276	332	377	424	555	710
Dimensions		С		222	263	309	353	396	498	598
mm		I	4	125	150	171	196	190	233	285
			S	38	38	40	42	45	58	65
		1	=	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3
	******		а	64-203	88-203	100-203	114-203	124-203	136-203	+
Beam range	mm	М	b	64-305	88-305	100-305	114-305	124-305	136-305	175-305
	len	é	3	10.5	17.5	27	41	82	159	±1
Net weight	kg	1	5	11.5	19	29	143	89	167	327















SS-F3

Marine **Anti-corrosion** Chain Hoist





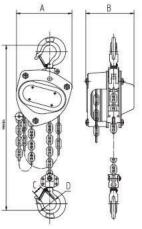
SS-F3 Marine Anti-corrosion Chain Hoist



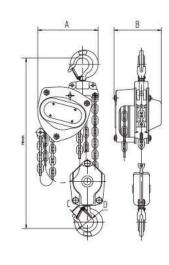
It is ideal for safe use in marine environments and where the sea water salinity is high, with less care and maintenance cost.

- 1. The product has passed ISO9001, ISO14001, CE/GS, LR, CCS and other related certifications.
- 2. Applicable to marine high salinity environment.
- 3. The product uses special anti-corrosion treatment, in line with IS012944 standard; the highest anti-corrosion grade can reach C5-M.
- 4. Stainless steel lifting chain, special marine storage chain bag, overload limiter are optional

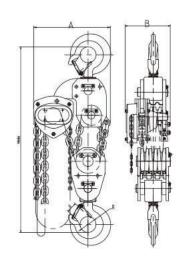


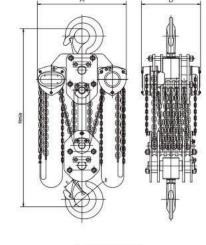












7.5t ~ 15t

20t ~ 30t

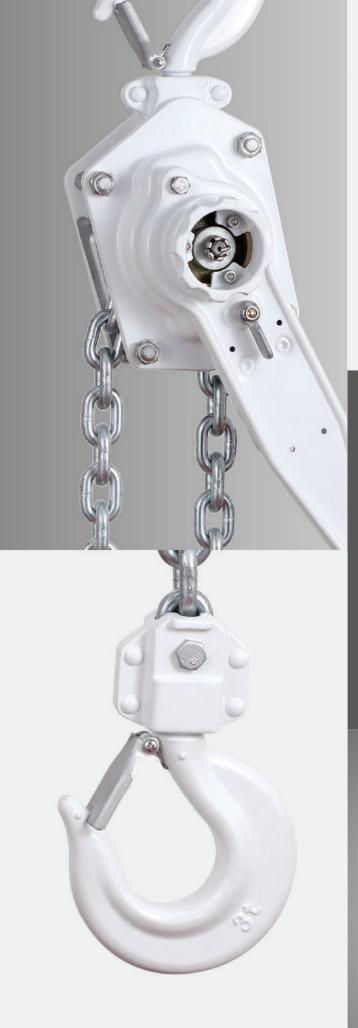
Model		F3-0.5	F3-1	F3-1.5	F3-2	F3-3	F3-5	F3-10	F3-15	F3-20	F3-30
Capacity	t	0.5	1	1.5	2	3	5	10	15	20	30
Lifting height	m	2.5	2.5	2.5	2.5	3	3	3	3	3	3
Test load	KN	6.3	12.5	18.8	25	37.5	62.5	125	187.5	250	375
Pull on lever to lift full load	Ν	240	250	265	335	372	380	385	385	390x2	240
No.of load chain falls		1	1	1	1	1	2	4	6	8	12
Diameter of load chain	mm	5x15	6x18	7x21	8x24	10x30	10x30	10x30	10x30	10x30	10x30
	Α	148	172	196	210	255	280	385	405	640	705
	В	132	151	173	175	205	189	189	242	226	454
Dimensions	С	23	26	29.5	34	39	41	50	80	80	80
mm	D	35	40	45	50	55	65	85	110	110	110
	Hmin	345	376	442	470	580	690	780	920	980	1280
Net weight	kg	9.3	12.2	16.5	19.5	32	43	80.7	140	180	350
Extra wt.per m	mm	1.41	1.67	1.97	2.27	2.95	5.27	9.67	14.07	19.34	28.14





SS-L3















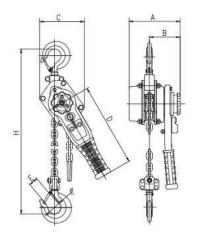
SS-L3 Marine Anti-corrosion Chain Hoist

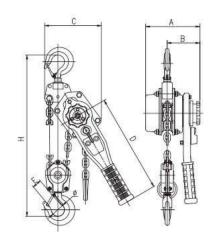


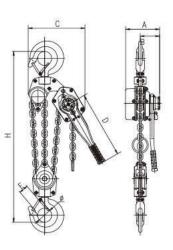
It is ideal for safe use in marine environments and where the sea water salinity is high, with less care and maintenance cost.

- 1. The product has passed ISO9001, ISO14001, CE/GS, LR, CCS and other related certifications.
- 2. Applicable to marine high salinity environment.
- 3. The product uses special anti-corrosion treatment, in line with IS012944 standard; the highest anti-corrosion grade can reach C5-M.
- 4. Stainless steel lifting chain, special marine storage chain bag, overload limiter are optional









型号 Model		L3-0.5	L3-1	L3-1.5	L3-2	L3-3	L3-5
Capacity	t	0.5	1	1.5	3	6	9
Lifting height	m.	1.5	1.5	1.5	1.5	1.5	1.5
Test load	KN	6.3	12.5	18.8	37.5	75	112.5
Pull on lever to lift full load	N	256	250	373	395	398	400
No.of load chain falls		1	1	1	1	2	3
Diameter of load chain	mm	5x15	6x18	7x21	10x30	10x30	10x30
	Α	143	157	178	206	206	206
	В	90.5	94	104	118	118	118
	С	118	140	145	199	230	342
Dimensions mm	Ø	31.5	37.5	42.5	50	65	85
	Е	23.5	26	31	37	46	55
	Hmin	330	365	400	520	595	800
Net weight	kg	5.5	7.9	10.9	20.2	35	55
Extra wt.per m	mm	0.55	0.8	1.1	2.15	4.3	6.45

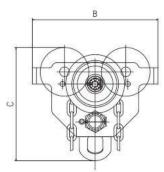


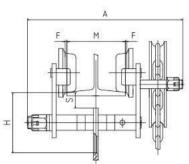




SSGCL Anti-corrosion Geared Trolley





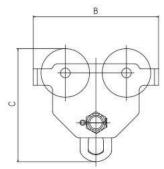


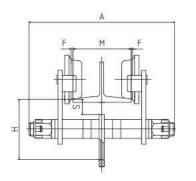
Model				GCL-1	GCL-2	GCL-3	GCL-5	GCL-10	GCL-20	GCL-30
Capacity		1		1	2	3	5	10	20	Ħ
Test load		KN		14.71	29.42	44.13	61.29	122.58	245.17	R
Running height		m		2.5	2.5	2.5	2.5	2.5	2.5	2.5
Min. radius curve		r	n	1.0	1.1	1.3	1.4	2.0	3.5	6.0
		А	а	311	327	343	355	388	449	628
		А	b	413	429	445	457	490	551	582
		В		246	276	332	377	424	555	710
Dimensions		С		222	263	309	353	396	498	598
mm		1	1	125	150	171	196	190	233	285
			S	38	38	40	42	45	58	65
		-	=	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	N5-3
	P3 P3		а	64-203	88-203	100-203	114-203	124-203	136-203	198
Beam range	mm	М	b	64-305	88-305	100-305	114-305	124-305	136-305	175-305
	ka		9	14.5	21.5	31	46	88	165	2.80
Net weight	kg	1	5	15.5	23	33	48	94	174	337

SSGCT Anti-corrosion Push Trolley



Lifting & Hoisting Equipment





Model				GCT-1	GCT-2	GCT-3	GCT-5	GCT-10	GCT-20	GCT-30
Capacity	Capacity t			1	2	3	5	10	20	30
Test load	KN		N	14.71	29.42	44.13	61.29	122.58	245.17	367.75
Min. radius curve		m		1.0	1.1	1.3	1.4	2.0	3.5	6.0
		-	а	311	327	343	355	388	449	28
		Α	b	413	429	445	457	490	551	582
		E	3	246	276	332	377	424	555	710
Dimensions		С		222	263	309	353	396	498	598
mm		ŀ	Ч	125	150	171	196	190	233	285
			S	38	38	40	42	45	58	65
		F	=	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3
		1012	а	64-203	88-203	100-203	114-203	124-203	136-203	-
Beam range	mm	М	b	64-305	88-305	100-305	114-305	124-305	136-305	175-305
		é	3	10.5	17.5	27	41	82	159	ŧi.
Net weight	kg	ı	,	11.5	19	29	143	89	167	327

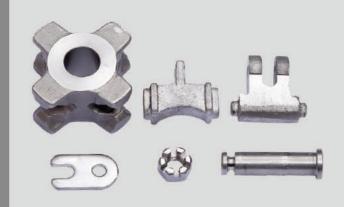


























SLST













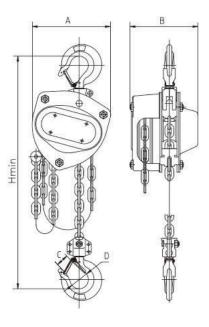
Stainless Steel Chain Hoist

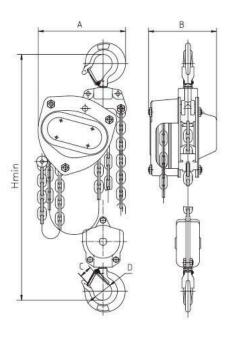


- 1. The main components are made of all stainless steel, which has strong anti-fouling, anti-corrosion and anti-wear properties.
- 2. The surface of the product is smooth and compact, not easy to be dusty and has good self-cleaning properties.
- 3. The hoist is easy to maintain, as it gets scratches or rust in daily use.
- 4. It is widely used in food, chemical, biological, marine and other places with corrosive factors and high cleanliness requirements.

Note: It is the responsibility of the user to tell in which corrosive environment the product is used.







Model		SL-1	SL-1.5	SL-2	SL-3
Capacity	t	1	1.5	2	3
Lifting height	m	2.5	2.5	2.5	3
Test load	KN	12.5	18.8	25	37.5
Pull on lever to lift full load	N	304	265	335	343
No.of load chain falls		1	1	1	1
Diameter of load chain	mm	7x21	9x27	7x21	9x27
	Α	172	196	192	230
	В	151	173	151	173
Dimensions	С	26	29.5	34	39
mm	D	40	45	50	55
	Hmin	376	442	425	565
Net weight	kg	13	16.5	19.5	31.5
Extra wt.per m	mm	1.97	2.61	3.1	4.37







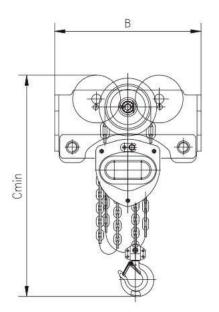


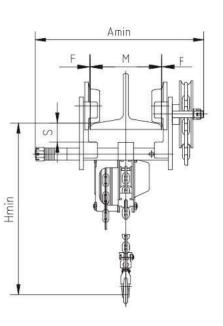


GCLF3 Combined Hoist











The product has passed ISO9001, ISO14001, CE/GS, ATEX, LR, CCS and other related certifications.

- 1. The chain hoist achieves a lower headroom height by fixed combination with a trolley, and the operation is more stable.
- 2. Explosion-proof model or anti-corrosion model is available. Explosion-proof model complies with the EU explosion-proof model compiles with the EU explosion-proof standard ATEX94/9/EC and mechanical guidelines 2006/42/EC, explosion-proof grades up to: Ex II 2 GD c IIC T4 IIIC T135 °C. Suitable for: potentially explosive atmospheres or dusty environments. Anti-corrosion model uses special anti-corrosion treatment, in line with IS012944 standard, the highest anti-corrosion grade can reach C5-M.
- 3. The trolley has anti-shedding protection, equipped with a rubber buffer device.
- 4. Self-locking device is optional for the trolley; Overload limiter, storage chain bag, stainless steel lifting chain are optional for the hoist.

Model				GCL-0.5	GCL-1	GCL-1.5	GCL-2	GCL-3	GCL-5		
Capacity		t		0.5	1	1.5	2	3	5		
Test load		KI	٧	7.35	14.71	22.06	29.42	44.13	61.29		
Running height		m		2.5	2.5	2.5	2.5	2.5	2.5		
Min. radius curve	m:		m		m 1.6		2.0	2.0	2.7	3.6	3.6
	,		а	272	334	337	343	357	373		
	1	4	b	322	436	439	445	459	475		
Dimensions mm		В		258	292	319	358	434	448		
		С		385	451	489	551	633	808		
		H S		299	331	383	424	486	625		
				30	37	38	38	40	42		
		F	2	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3		
	пт М		а	50-152	64-203	74-203	88-203	100-203	114-203		
Beam range ""		VI.	b	50-203	64-305	74-305	88-305	100-305	114-305		
lea	0	а		19	28	37	49.5	70.5	97		
Net weight kg		b		21	30	39	51.5	73.5	101		
Extra wt.per m		kg	7	2.26	2.52	2.82	3.12	3.8	6.12		







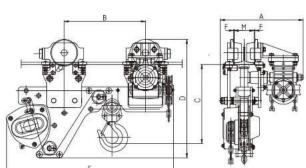


SHTX Turning Low-headroom Combination Hoist

Lifting & Hoisting Equipment

- 1. The SHTX series can provide minimum headroom and can travel within a small turning radius, reducing the space height requirement and saving cost.
- 2. Explosion-proof model or anti-corrosion model is available.
- 3. Self-locking device is optional for the trolley; Overload limiter and storage chain bag are optional for the hoist.

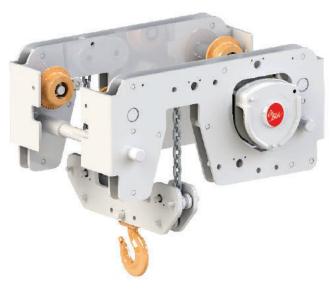




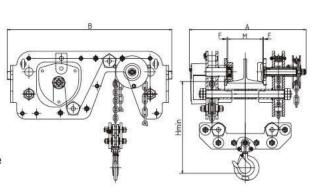
Model			SHTX-0.5	SHTX-1	SHTX-2	SHTX-3
Capacity		t	0.5	1	2	3
Test load		KN	6.125	12.25	24.5	36.75
Running height		m	2.5	2.5	2.5	2.5
Min. radius curve		m	0.54	0.54	0.54	1.02
		Α	342	342	366	435
		В	327	327	327	505
		C	317	317	317	275
Dimensions		D	477	477	488	600
mm		E	672	672	676	885
		F	1.5-3	1.5-3	1.5-3	1.5-3
Beam range	mm	М	88	88	112	150
Net weight		kg	62	62	62	82
Extra wt.per m		kg	3.3	3.3	3.3	3.9

SHB Low-headroom Combination Hoist





- 1. Bottom hook hanger can be lifted until the bottom surface of the beam, which allows the lifting height to the maximum, making full use of the space.
- 2. The trolley has anti-shedding protection, equipped with a rubber buffer device.
- 3. Explosion-proof model or anti-corrosion model is available.
- 4. Self-locking device is optional for the trolley; Overload limiter and storage chain bag are optional for the hoist.



Model		SHB-1	SHB-2	SHB-3	SHB-5	SHB-10	SHB-20
Capacity	t	1	2	3	2	2	2
Test load	KN	12.25	24.5	36.75	24.5	24.5	24.5
Running height	m	2.5	3	3	3	3	3
Beam range	mm	75-150	100-150	125-175	100-150	100-150	100-150
Dimensions mm	Α	440	513	608	655	742	798
	В	584	684	769	884	1105	1428
	Н	145	166	198	265	310	440
	F	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3	1.5-3
Net weight	<i>k</i> g	61	92	141	252	320	750
Extra wt.per m	kg	2.8	3.3	3.9	6.12	10.3	24

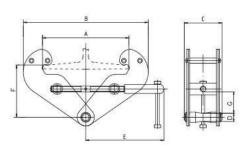
LJ-A BE

Beam Clamp



- 1. It is flexible to use, easy to assemble and disassemble, convenient for lifting, pulling work or semi-permanent anchor point in the track.
- 2. The product is equipped with an adjustable screw, can be easily adjusted to the corresponding beam width and locked.
- 3. Anti-corrosion coating is optional.





Model		LJ-1A	LJ-2A	LJ-3A	LJ-5A	LJ-10A	
Capacity	t		1	2	3	5	10
Beam range	mm		75-230	75-230	80-320	90-320	90-320
	Ar	nax	284	284	365	365	356
		а	180	180	220	220	250
Dimensions	В	b	375	375	498	498	514
	1	3	80	90	117	127	139
	(0	4	6	8	10	12
mm	1	Ξ	220	220	271	271	280
	F	а	102	102	168	168	172
	-	b	160	160	240	240	242
	(3	29	28	60	57	55
净重 Net weight	kg		4	5	9	11	18



Lifting & Hoisting Equipment

ST

Stainless Steel Push Trolley

The plain trolley adopts stainless steel design to ensure that it meets the standard strength requirements. The product is corrosion resistant, anti-oxidation, and has the characteristics of high temperature resistance and low temperature resistance. Beautiful surface finish, without surface treatment, easy maintenance

Notes: